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FORM PTO-1399 (Rev. 11-2000)		U.S. DEPT. OF COMMERCE PATENT AND TRADEMARK OFFICE		ORNEY'S DOCKET NUMBER 6502-1521
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 1.3) <b>10/088698</b>
INTERNATIONAL APPLICATION NO. PCT/IT99/00300		INTERNATIONAL FILING DATE 09/23/1999		PRIORITY DATE CLAIMED
TITLE OF INVENTION <b>SEALING GASKET WITH MAGNETIC CLOSURE, PARTICULARLY FOR DOOR WINGS, HATCHES, WINDOWS AND DOORS...</b>				
APPLICANT(S) FOR DO/EO/US <b>Mr. Alfonso Caldiroli, Mr. Paolo Cittadini</b>				
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:				
<ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li><input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.</li> <li><input checked="" type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31).</li> <li><input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c) (2))             <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau)</li> <li><input type="checkbox"/> has been communicated by the International Bureau.</li> <li><input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li><input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).             <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> is attached hereto.</li> <li><input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li><input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))             <ol style="list-style-type: none"> <li><input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li><input type="checkbox"/> have been communicated by the International Bureau.</li> <li><input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li><input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li><input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3))</li> <li><input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).</li> <li><input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).</li> <li><input checked="" type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409).</li> <li><input checked="" type="checkbox"/> A copy of the International Search Report (PCT/ISA/210).</li> </ol>				
Items 13 to 20 below concern document(s) or information included:				
<ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li><input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included</li> <li><input type="checkbox"/> A <b>FIRST</b> preliminary amendment.</li> <li><input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</li> <li><input type="checkbox"/> A substitute specification.</li> <li><input type="checkbox"/> A change of power of attorney and/or address letter.</li> <li><input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.</li> <li><input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4).</li> <li><input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> <li><input checked="" type="checkbox"/> Certificate of Mailing by Express Mail</li> <li><input type="checkbox"/> Other items or information:</li> </ol>				

U.S. APPLICATION NO. (IF KNOWN) SEE 10/088698		INTERNATIONAL APPLICATION NO. PCT/IT99/00300		ATTORNEY'S DOCKET NUMBER 6502-1521	
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24. The following fees are submitted:

**BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :**

<input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO	\$1040.00
<input checked="" type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO	\$890.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO	\$740.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4)	\$710.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4)	\$100.00

**ENTER APPROPRIATE BASIC FEE AMOUNT =**

	\$890.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)). <input type="checkbox"/> 20 <input type="checkbox"/> 30	\$0.00	

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total claims	19 - 20 =	0	x \$18.00	\$0.00
Independent claims	1 - 3 =	0	x \$84.00	\$0.00
Multiple Dependent Claims (check if applicable) <input checked="" type="checkbox"/>				\$280.00
<b>TOTAL OF ABOVE CALCULATIONS</b>				<b>\$1,170.00</b>

☐ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2

**SUBTOTAL = \$1,170.00**

Processing fee of \$130.00 for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492 (f)). <input type="checkbox"/> 20 <input type="checkbox"/> 30	\$0.00	
<b>TOTAL NATIONAL FEE</b>		<b>\$1,170.00</b>

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable).	\$40.00	
<b>TOTAL FEES ENCLOSED</b>		<b>\$1,210.00</b>

	Amount to be: refunded	\$
	charged	\$

a. ☒ A check in the amount of \$1,210.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \_\_\_\_\_ to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 12-0913. A duplicate copy of this sheet is enclosed.

d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

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REGISTRATION NUMBER

March 14, 2002

DATE

2/pst

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DescriptionSealing Gasket with Magnetic Closure, Particularly for Door Wings, Hatches,  
Windows and Doors and the Like and Method for its RealisationTechnical Field

The present invention relates to a sealing gasket with magnetic closure.

The invention further relates to a new method for the realisation of a sealing gasket with magnetic closure.

In particular, the subject gasket is destined to realise magnetic closures in uses such as windows and doors, door wings of refrigerating rooms, wings and/or doors for shower compartments, etc., exerting a tighter or less tight seal according to the uses and operative requirements arising on each occasion.

Background Art

As is well known, sealing gaskets or section bars with magnetic closure are formed by a supporting section bar made of plastic resin which normally comprises an attachment base or portion, for instance presenting a "P"-shaped cross section or with tabs, for engagement to a movable part or to a fixed part of a window, of a door and the like, and a rabbet portion, presenting a striking face set to match against a surface with which the closure is obtained.

Internally to the rabbet portion of the section bar is associated a magnetised strip-shaped element, for instance made of plasto-ferrite. In some types of gasket, the magnetised strip-shaped element presents on its main face, corresponding to said striking face of the section bar, at least a pair of magnetised longitudinal bands with opposite polarity on each cross section. In other words, the magnetic element presents for example two adjacent longitudinal bands, one with North polarity and the other one with South polarity. In dual gasket closures, both parts set mutually to match in the closed position are provided with their own magnetic section bar,

obviously presenting said magnetised longitudinal bands with their polarities suitably positioned to realise the mutual attraction force.

In practice, on the main face of the magnetised strip-shaped element, for example, there is a longitudinal band of the same polarity flanked over the entire length of the gasket by a longitudinal band of opposite polarity. In the case of sealing gaskets of greater length, for example around 10 mm, for the best exploitation of the magnetic attraction force, 4-pole magnetised elements, i.e. presenting 4 longitudinal bands, can also be used. In this case, each band presents the same polarity along its entire longitudinal development and is positioned adjacently to a band of opposite polarity, so that transversely each band is alternated with a band of opposite polarity.

The known method for the realisation of the sealing gaskets summarily described above generally comprises the continuous unwinding from a coil of a strip-shaped element already longitudinally magnetised as stated; thereafter, the latter is coated preferably by means of extrusion of a section bar made of plastic resin or the strip-shaped magnetised element is inserted into a plastic resin section bar with an appropriate pre-formed seat; subsequently, the product thus obtained is cooled in tanks, and cut transversely into the required lengths. Possibly, depending on the applications, the rectilinear gaskets are terminally welded to form ready-made sealing frames (one can think, for instance, of uses for refrigerated rooms, windows and doors, et cetera).

The sealing gaskets with magnetic closure of the kind described above present some important drawbacks.

In the first place, directly in the manufacturing phase, it is necessary to guarantee a correct positioning of the magnetic poles on the section bars since any errors may compromise the future suitability for use of the product.

Moreover, particularly in the case of symmetrically shaped magnetic section bars destined to be coupled frontally with identical magnetic section bars, it is necessary suitably to mark the section bars and the magnetised strip-shaped elements by means of small projections or grooves, in order to identify on which side of the

striking face the same polarity is present, to provide correct indications both during the manufacturing process and when mounting the gaskets. It is essential, upon closing two parts of a window or door or the like, for the magnetic poles of each gasket to be positioned in correspondence with magnetic poles of opposing sign  
5 belonging to the opposite gasket. These mounting conditions are often not met, which forces the workers assigned to the task to perform laborious operations to remove one of the two magnetic closure gaskets and apply the gasket anew after suitably reversing its position, thereby positioning the magnetic charges correctly.

Also in the case of asymmetrically shaped section bars, typically destined to  
10 form angle closures on surfaces for instance inclined by  $45^\circ$  from the respective attachment bases, some negative aspects are encountered. In this type of section bar, though mounting errors are not possible given its particular shape, it is nonetheless necessary to use two different section bars, each having, in its interior, magnetic section bars with opposite poles, and thus realised with two distinct manufacturing  
15 processes with obvious increases in terms of manufacturing, handling, and storage.

In addition, with particular reference to the latter type of gasket with asymmetrical cross section structure, it should be noted that in case of a manufacturing error involving an incorrect positioning of the magnetic poles of a gasket, it would not be possible to use that gasket after suitably reversing it since,  
20 due to the asymmetry, the reversed gasket would no longer be able correctly to engage the support whereto it is destined

In the attempt to overcome the latter drawback, gaskets have been proposed on the market which are provided with a magnetic element having an odd number of magnetised longitudinal bands. Should it be possible to use gaskets with an odd  
25 number of magnetised longitudinal bands, for instance with three poles, i.e. provided with three magnetised longitudinal bands on the striking face, each longitudinally of the same polarity and of opposite polarity with respect to those flanking it, it would nonetheless be necessary, in case of closures with dual gaskets, to have two distinct magnetic section bars available. A first section bar presents the two side bands of a

given polarity and the central band of opposite polarity whereas, obviously, the second section bar presents the two lateral bands and the central band with polarity opposite to that of the first section bar.

Hence, the drawbacks in terms of manufacturing, handling, etc. are obvious.

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#### Disclosure of Invention

In this situation, the technical task at the base of the present invention is to devise a sealing gasket with magnetic closure and a method for its realisation able substantially to overcome the aforementioned drawbacks.

10 Within the scope of said technical task, an important aim of the invention is to devise a sealing gasket with magnetic closure force which is of a single type for both parts of a window, door or the like, to be approached in closure irrespective of the cross section shape of the supporting section bar.

15 Another important aim of the invention is to devise a sealing gasket with magnetic closure that allows to prevent all errors in its mounting.

A further aim of the invention is to devise a method for the realisation of a sealing gasket in accordance with the invention which allows to manufacture additional gaskets in the required lengths without any difficulty.

20 The stated technical task and the specified aims are substantially attained by a sealing gasket with magnetic closure and by a method for its realisation which are characterised in that they comprise one or more of the technical solutions claimed below.

25 The description of some preferred, but not exclusive, embodiments of a sealing gasket with magnetic closure according to the invention is provided below, purely by way of non limiting indicative example; the description is made with reference to the accompanying drawings, provided purely by way of example.

#### Description of the Drawings

- Figure 1 shows a generic cross section of a first embodiment of a sealing gasket for

frontal closures whereto the invention can be applied;

- Figure 2 shows a generic cross section of a second embodiment of a gasket for 45° closures whereto the invention can be applied;

- Figure 3 schematically highlights a front view of two strip-shaped elements magnetised with two poles according to the invention and able mutually to couple in any way, characterised by a pair of segments of opposite polarity in each magnetised longitudinal band;

- Figure 4 shows a schematic front view of a strip-shaped element magnetised with 4 poles and with a pair of segments for each magnetised longitudinal band; and

- Figure 5 shows a schematic front view of a strip-shaped element magnetised with two poles and with two pairs of segments for each magnetised longitudinal band.

#### Description of the Illustrative Embodiments

With reference to the aforementioned figures, the sealing gasket with magnetic closure according to the invention is indicated in its entirety with the number 1.

It comprises a supporting section bar 2 made of plastic resin, in turn comprising an attachment base 3 and a rabbet portion 4 presenting a striking face 4a set to come to rest against a surface provided for matching therewith which, in closures with dual gaskets, is constituted by the striking face of another gasket.

In the rabbet portion 4 of the supporting section bar 2 is inserted a magnetised strip-shaped element 5 presenting on a main face 5a, corresponding to the striking face 4a, at least a pair of magnetised longitudinal bands 6, 7 of opposite polarity in each cross section. It should be noted that the magnetised longitudinal bands involve part, or preferably, all of the longitudinal extension of the element 5. Obviously, depending on the applications, areas of the surface 5a without magnetisation may be provided.

Originally, each longitudinal magnetised band 6, 7 is subdivided in at least a pair of segments, respectively 6a, 6b and 7a, 7b, preferably of equal length presenting homogeneous magnetic poles in each segment (longitudinally consecutive) and

opposite with respect to those of the other segment of the same longitudinal band. In practice, each segment 6a, 6b or 7a, 7b of each magnetised longitudinal band 6 or 7 is flanked laterally and is adjacent longitudinally to segments of opposite polarity.

For instance, Figure 3 shows two strip-shaped elements destined to be mutually coupled and presenting each a pair of magnetised longitudinal strips 6,7. The strip 6 superiorly presents, as shown in Figure 3, a segment 6a with South polarity and an inferior segment 6b with North polarity. Conversely, the strip 7 presents superiorly a segment 7a with North polarity and inferiorly a segment with South polarity.

It is obviously possible to provide, on the contrary, for the segments 6a and 7b to have North polarity and for the segments 7a and 6b to have South polarity.

Figure 4 shows the main face 5 of a strip-shaped element with two polar pairs, i.e. with four magnetised longitudinal strips 8, 9, 10, 11, each of which is subdivided into a pair of (longitudinally consecutive) segments, preferably of equal length, i.e. 8a and 8b, 9a and 9b, 10a and 10b, 11a and 11b. In this case too one can observe that each segment, for instance with North polarity, is laterally flanked by one or more segments with South polarity and is longitudinally adjacent to a segment, also with South polarity.

Figure 5 shows the main face of a strip-shaped element with one polar pair, i.e. with two longitudinal strips 6, 7, each of which is subdivided into two pairs of segments of equal length respectively indicated as 6a, 6b, 6c, 6d and 7a, 7b, 7c, 7d. Each segment of each strip complies with the alternation in polarity with the segment flanking it and with the longitudinal adjacent segment or segments.

The aforementioned examples are provided purely by way of indication, for it is obviously possible to subdivide each magnetised longitudinal strip into a greater number of pairs of segments of the same length, according to a checkerboard distribution of the alternating polarity.

The strip-shaped elements longitudinally magnetised with the criteria described above can be advantageously coupled to any shape of the supporting section bar.

In particular, in Figure 1 the rabbit portion 4 of the supporting section bar



presents a substantially rectangular cross section shape so as to position the striking face 4a parallel with respect to the attachment base 4 to realise frontal closures. Given its symmetry this supporting section bar, as in the prior art, is a single one for both gaskets of a dual gasket closure, but, advantageously, cannot give rise to mounting errors because, as can be noted observing any one of the Figures 3, 4, 5, the reversal or mutual interchange of the extremities of a gasket does not change the disposition of the magnetic poles. For instance, with reference to Figure 3, if the gasket is reversed around a median transverse axis, the segment 6a with South polarity would be exchanged with the segment 7b, also with South polarity and, obviously, the segment 7a with North polarity would be replaced by the segment 6b, also with North polarity.

In Figure 2 the rabbet portion 4 has a substantially right triangle cross section profile, thereby positioning the striking face 4a inclined to about  $45^\circ$  with respect to the attachment base 3 to enable forming closures between opposite gaskets along matching surfaces oriented to  $45^\circ$ . Also with this shape of the supporting section bar the employment of the magnetised strip-shaped element in the manners described above is particularly advantageous as it is possible to produce a single type of symmetric gasket and then reverse, upon mounting, one of the two gaskets to be coupled in order to realise the right gasket and the left gasket with a simple reversal of position, naturally keeping unchanged the position of the magnetic charges. Hence, the manufacture and storage of two distinct gaskets are avoided with obvious benefits in terms of costs.

The invention realises a new method which also constitutes an integral part of the present patent.

The method provides for continuously unwinding from a coil a strip-shaped element made of material that is capable of being magnetised, but is not yet magnetised (or is only partially magnetised), for instance plasto-ferrite, and for inserting said strip-shaped element in a supporting section bar made of plastic resin, for instance directly during the extrusion of the section bar itself. The method further

provides for identifying each portion of the supporting section bar, fitted internally with the strip-shaped element able to be magnetised, destined to form a gasket, i.e. having the required longitudinal development, and for subdividing said portion into at least a pair of areas of equal length (or similar length). The areas thus identified  
5 are subjected to magnetisation on a main face corresponding to the striking face of the supporting section bar along at least a pair of longitudinal faces, each subdivided into segments corresponding to the same areas of equal length (or similar length).

The magnetisation is performed so that each segment 6a, 6b, 7a, 7b, etc. presents its own homogeneous polarity, opposite to that of the segment laterally  
10 flanking it and of the longitudinally adjacent segment.

Obviously all gaskets that are to be mutually coupled are subdivided into the same number of pairs of segments of equal length and each segment presents magnetic charges of the same polarity as the segment of the other gasket having corresponding position.

15 Lastly, each gasket realised is cut. This operation, if desired, can be performed also before the magnetisation process.

The invention presents important advantages.

The possibility of applying the gaskets with symmetrical cross sections in accordance with the invention without having to follow any mounting rule aimed at  
20 correctly positioning the magnetic charges makes mounting faster and simpler, preventing all possibilities of installing gaskets which, instead of magnetically attracting each other, are mutually repelled.

It should be noted that even in gaskets with asymmetrical cross section, wherein normally no positioning errors are possible because the very shape of the  
25 gasket forces a proper mounting, the use of magnetised strip-shaped elements in accordance with the invention allows to limit the gaskets to be manufactured and stored to one type only.

It is stressed that the condition of positioning indifference of the magnetised strip-shaped element and therefore also of the gasket makes it unnecessary to place

on the surface of the gasket particular markings relating to the position of the magnetic charges (in the examples shown such marking are present though wholly unneeded with reference to the identification of the distribution of the magnetic charges).

5           Lastly, it should be noted that the method according to the invention is particularly advantageous for the realisation of gaskets of the type described above because, if the prior art method were used, i.e. in particular if a strip-shaped element were to be magnetised beforehand, prior to being wound into the coil, it would be necessary not only to have *a priori* knowledge of the lengths of the gaskets to be  
10       manufactured, but also to synchronise with a great deal of precision and with obvious difficulty the cutting of the section bar with its advance, in order to obtain gaskets whose segments are magnetised correctly.

Claims

1. Sealing gasket with magnetic closure particularly for door wings, doors, windows and the like comprising:

a supporting section bar (2) comprising an attachment base and a rabbet portion (4) presenting a striking face (4a) set to come to rest against a surface with which it is to realise the closure, and

a magnetised element (5) inserted in said rabbet portion (4) of the supporting section bar (2) and presenting on a main face (5a) corresponding to said striking face (4a), at least for a pre-fixed portion of the longitudinal extension of the element (5) itself, at least a pair of magnetised longitudinal bands (6, 7) with opposite polarity in correspondence with each cross section, characterised in that each of said magnetised longitudinal bands (6, 7) comprises at least a pair of segments (6a and 6b, 7a and 7b) substantially of equal or similar lengths,

said pair of segments presenting magnetic charges of homogeneous polarity in each segment and of opposite polarity with respect to that of the other segment,

each said segment of each longitudinal band being laterally flanked and being longitudinally adjacent to segment of opposite polarity.

2. Gasket according to claim 1, characterised in that said rabbet portion (4) presents, in its cross section, a substantially right triangle profile so as to position said striking face (4a) inclined by about 45° with respect to said attachment base (3).

3. Gasket according to claim 1, characterised in that said rabbet portion (4) presents in its cross section a substantially rectangle profile so as to position said striking face (4a) parallel with respect to said attachment base (3).

4. Gasket according to any of the previous claims, characterised in that the main face of the element (5) comprises a plurality of magnetised longitudinal bands,

positioned parallel to each other and in an even number.

5 5. Gasket according to any of the previous claims, characterised in that each of said longitudinal bands (6, 7; 8, 9, 10, 11; 6, 7) comprises a plurality of segments (6a, 6b, 7a, 7b; 8a, 8b, 9a, 9b, 10a, 10b, 11a, 11; 6a, 6b, 6c, 6d, 7a, 7b, 7c, 7d) positioned mutually adjacent and in an even number.

10 6. Gasket according to any of the previous claims, characterised in that said supporting section bar (2) is made of plastic material and said element (5) is made of plastic material wherein particles of material able to be magnetised are distributed.

15 7. Gasket according to claim 6, characterised in that said element (5) is made of plasto-ferrite.

8. Gasket according to any of the previous claims, characterised in that said element (5) is strip-shaped and presents constantly shaped cross section along the longitudinal development of the element (5) itself.

20 9. Gasket according to any of the previous claims, characterised in that the element (5) has its main face (5a) magnetised substantially over its entire longitudinal development.

25 10. Method for the realisation of a sealing gasket with magnetic closure particularly for door wings, doors, windows and the like, preferably of the type described in one or more of the previous claims, said method being characterised in that it comprises the following phases:  
making a preferably strip-shaped element made of material capable of being magnetised advance continuously,

inserting said element into a supporting section bar made of plastic resin, subdividing at least into a pair of areas of equal length each portion of said supporting section bar, internally fitted with said strip-shaped element, destined to form a gasket presenting the required longitudinal development,

- 5     subjecting to magnetisation said areas of equal length so as to form, on a main face (5a) of said strip-shaped element corresponding to a striking face of the supporting section bar, at least a pair of magnetised longitudinal bands (6, 7) subdivided each into segments (6a, 6b, 7a, 7b) corresponding to said areas of equal length and presenting homogeneous magnetic charges in each segment and of opposite polarity  
10     with respect to the laterally flanking segment and to the longitudinally adjacent segment.

11.     Method according to claim 10, characterised in that before or after said magnetisation phase there is a phase wherein said portion of the supporting section  
15     bar destined to form a gasket is cut transversely.

12.     Method according to claim 10, characterised in that said preferably strip-shaped element is continuously unwound from a suitably pre-packaged coil.

- 20     13.     Magnetised element, in particular for sealing gaskets of the type described in one or more of the claims from 1 to 9, comprising on its main face (5a) and at least for a pre-set portion of the longitudinal extension of the element (5) itself, at least a pair of magnetised longitudinal bands (6, 7) of opposite polarity in correspondence with each cross section, characterised in that each of said magnetised  
25     longitudinal bands (6, 7) comprises at least a pair of segments (6a) and (6b), (7a) and (7b) substantially of equal or similar length, said pair of segments presenting magnetic charges of homogeneous polarity in each segment and of opposite polarity with respect to that of the other segment,  
each said segment of each longitudinal band being laterally flanked and being

13

longitudinally adjacent to segments of opposite polarity.

14. Element according to claim 13, characterised in that the main face of the magnetised element comprises a plurality of magnetised longitudinal bands  
5 positioned parallel to each other and in an even number.

15. Element according to claim or claim 14, characterised in that each of said longitudinal bands (6, 7; 8, 9, 10, 11; 6, 7) comprises a plurality of segments (6a, 6b, 7a, 7b; 8a, 8b, 9a, 9b, 10a, 10b, 11a, 11; 6a, 6b, 6c, 6d, 7a, 7b, 7c, 7d) positioned  
10 mutually adjacent, and in an even number.

16. Element according to any of the claims 13 through 15, characterised in that said the magnetised element is made of plastic material wherein particles of material able to be magnetised are distributed.  
15

17. Element according to claims 13 through 15, characterised in that it is made of plasto-ferrite.

18. Element according to any of the claims 13 through 17, characterised in that it presents strip-shaped structure and constantly shaped cross section along the longitudinal development of the element itself.  
20

19. Gasket according to any of the claims 13 through 18, characterised in that it has its main face (5a) magnetised substantially over its entire longitudinal development.  
25

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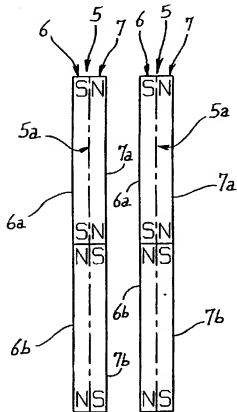
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- Published:**  
— With international search report.

[Continued on next page]

(54) Title: **SEALING GASKET WITH MAGNETIC CLOSURE, PARTICULARLY FOR DOOR WINGS, HATCHES, WINDOWS AND DOORS AND THE LIKE AND METHOD FOR ITS REALISATION**

(57) Abstract: A sealing gasket with magnetic closure is provided, comprising a support section bar (2) preferably made of plastic resin and a magnetised strip-shaped element (5) inserted in the supporting section bar and presenting on a main face (5a) at least a pair of magnetised longitudinal bands (6, 7) each subdivided into at least a pair of segments of equal or similar length and presenting each an opposite polarity with respect to that of laterally flanking and longitudinally adjacent segments. Also provided is a method for the realisation of the sealing gasket with magnetic closure according to the invention wherein the magnetisation of the strip-shaped element is performed after its insertion into the supporting section bar.



WO 01/22015 A1



1/2

FIG. 1

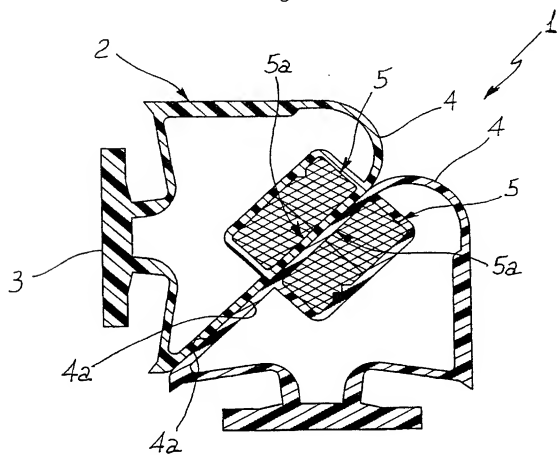
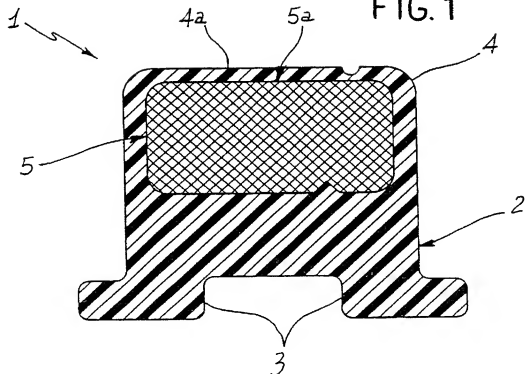


FIG. 2

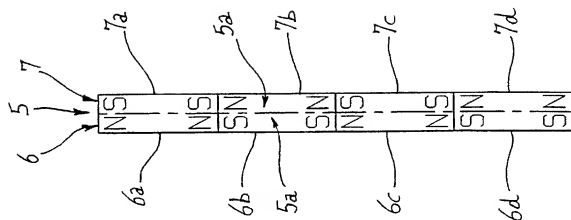


FIG. 5

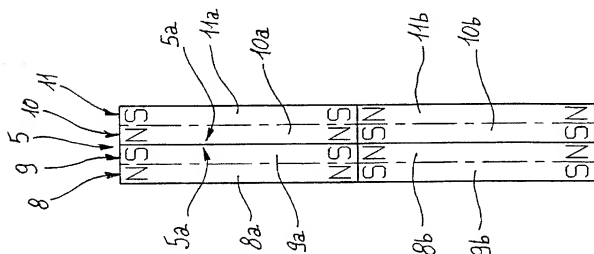


FIG. 4

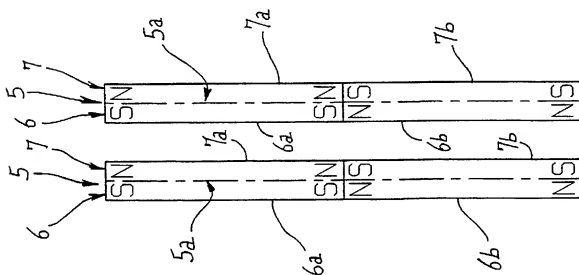


FIG. 3

Docket No. 6502-1521**DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled SEALING GASKET WITH MAGNETIC CLOSURE, PARTICULARLY FOR DOOR WINGS, HATCHES, WINDOWS AND DOORS AND THE LIKE AND METHOD FOR ITS REALISATION, the specification of which:

X

is attached hereto.

\_\_\_\_\_

was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_

and was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

**PRIOR FOREIGN APPLICATION(S)**

Country	Number	Date Filed	Priority Claimed	
			Yes	No
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

I hereby claim the benefit under Title 35, United States Code Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
_____	_____	_____
_____	_____	_____

And I hereby appoint Thomas E. Smith, Registration No. 18,243, Dennis M. McWilliams, Registration No. 25,195, James R. Sweeney, Registration No. 18,721, William M. Lee, Jr., Registration No. 26,935, Glenn W. Ohlson, Registration No. 28,455, David C. Brezina, Registration No. 34,128, Jeffrey R. Gray, Registration No. 33,391, Timothy J. Engling, Registration No. 39,970, Gerald S. Geren, Registration No. 24,528, Robert F. I. Conte, Registration No. 20,354, Peter J. Shakula, Registration No. 40,808, William J. Lenz, Registration No. 44,208, Wm. Marshall Lee, Registration No. 16,853, John M. Mann, Registration No. 17,775 and Gregory B. Beggs, Registration No. 19,286 to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith. It is requested that all communications be directed to:

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Signature \_\_\_\_\_ Date March 4, 2002

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